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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,396	02/07/2006	Thomas Durbaum	DE 030275	3931

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NXP, B.V.  
NXP INTELLECTUAL PROPERTY DEPARTMENT  
M/S41-SJ  
1109 MCKAY DRIVE  
SAN JOSE, CA 95131

EXAMINER
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ZWEIZIG, JEFFERY SHAWN

ART UNIT	PAPER NUMBER
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2816

NOTIFICATION DATE	DELIVERY MODE
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12/23/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,396	<b>Applicant(s)</b> DURBAUM, THOMAS	
	<b>Examiner</b> Jeffrey S. Zweizig	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 7 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### ***Claim Objections***

Claim 6 recites a first preset value. Claim 7 recites a second preset value. Claim 7 should depend on claim 6 (not claim 5) so as to have proper antecedent basis for a second preset value. Likewise, claim 15 should depend on claim 14, not claim 13. Correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8 and 10-14 remain rejected under 35 U.S.C. 102(b) as being anticipated by Osborn et al. (5,796,278).

Fig. 4 shows first 210 and second 202 parallel FETs, a gate voltage control circuit 225/226/228/230 and a temperature sensor 222 as recited in claims 1, 2 and 8. FETs inherently have ON resistances. The FETs are individually controlled (i.e. the first FET is controlled at the right side of resistor 226 and the second FET is controlled by the left side of resistor 226).

The currents and temperatures of the first and second FETs are adjusted to each other by the gate voltage control circuit as recited in claim 3.

Component 222 is a current measuring unit as recited in claim 4.

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Claim 5 is anticipated for the reasons above.

Little weight is given to claim 6 since "preset threshold value" is ambiguously undefined. The circuit inherently operates according to a "threshold value"

The circuit performs the methods recited in claims 10-14.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn et al. in view of Shreve et al. (6,100,728).

Osborn et al. indicate that their circuit can be applied to inductive loads (col 1, In 14), but do not appear to specifically mention automotive applications as recited in claim 9. Shreve et al. shows another FET circuit applicable to an ignition system (i.e. an automotive application). It would have been obvious to apply the Osborn et al. invention to automotive applications as taught by Shreve et al. All the claimed elements were known in the Prior Art and one skilled in the art could have combined the elements as claimed by known methods with no changes in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

***Response to Amendments and Arguments***

In light of the amendments to the claims, the rejections based on the Nakamura reference are withdrawn.

Rejections based on the Osborn et al. reference have been modified to reflect the amendments to the claims.

Arguments regarding the Osborn et al. reference are not persuasive. Examiner disagrees with Applicant's reasoning. It is plainly understood that every transistor has an inherent temperature dependence. For a given operating point, the current through a transistor will change with a change in the transistor's temperature. The relationship between a transistor's temperature and the transistor's ON current is inseparable. Osborn et al. show a classic corrective feedback arrangement. Any change in the temperature of transistor 210 would inherently alter the current through transistor 210. Any change in the current through transistor 210 would result in a voltage change across component 222. The voltage across component 222 is monitored by a corrective feedback circuit for correcting current fluctuations through transistor 210. By nature, this circuit arrangement possesses inherent temperature stability properties. Therefore, it is perfectly reasonable to view component 222 as a temperature sensor since component 222 provides a voltage value that is directly dependent on a current through transistor 210, which is directly related to the temperature of transistor 222.

***Conclusion***

Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (see the Claim Objections at the beginning of the Office Action).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571)

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272-1758. The examiner can normally be reached on Monday thru Wednesday 6:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Jeffrey S. Zweizig/  
Primary Examiner, Art Unit 2816

Jeffrey S. Zweizig  
Primary Examiner  
Art Unit 2816